

Poison or Placebo?

Evidence on the Deterrence and Wealth Effects of Modern Antitakeover Measures

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and

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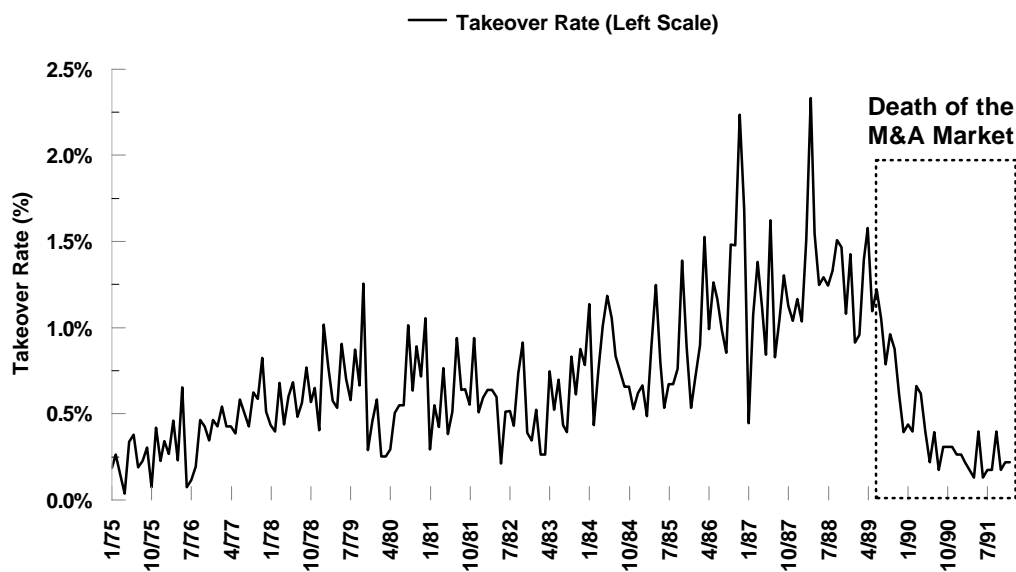


Fig. 1. Monthly time-series plot of the proportion of all exchange-listed firms that received initial merger proposals, merger agreements, or inter-firm tender offers each month (left-hand scale).

What Killed the M&A Market?

Could it be poison pills & antitakeover laws?

- **or, "credit crunch" in late 1980s?**
- **or, the end of a normal "merger wave"?**

State Antitakeover Laws

Restrict the voting rights of a controlling shareholder

- **New York adopted the first C S law in 1985**
- **Supreme Court upheld Indiana's C S law in April 1987**

Business combination (merger-moratorium or freeze-out) laws

- **delay any business combination**
- **Ohio adopted the first B C law in 1982**
- **Delaware adopted its B C law in January 1988**
- **appellate court upheld Wisconsin's B C law in June 1988**

States with no antitakeover law

- **incl Texas and California**

Event Studies on State Laws, Charter Amendments & Pills

Karpoff and Malatesta (1989):

1,505 firms affected by introduction of 40 laws in 26 states

- two-day announcement return = -0.29%

Jarrell and Poulsen (1987):

649 fair-price, classified board and supermajority voting amendments from 1980-1985

- average announcement return of -1.25%

Ryngaert (1988):

283 poison pills 1984-86

- two-day announcement return = -0.34%

Data Sources: Pills & Laws

State antitakeover laws

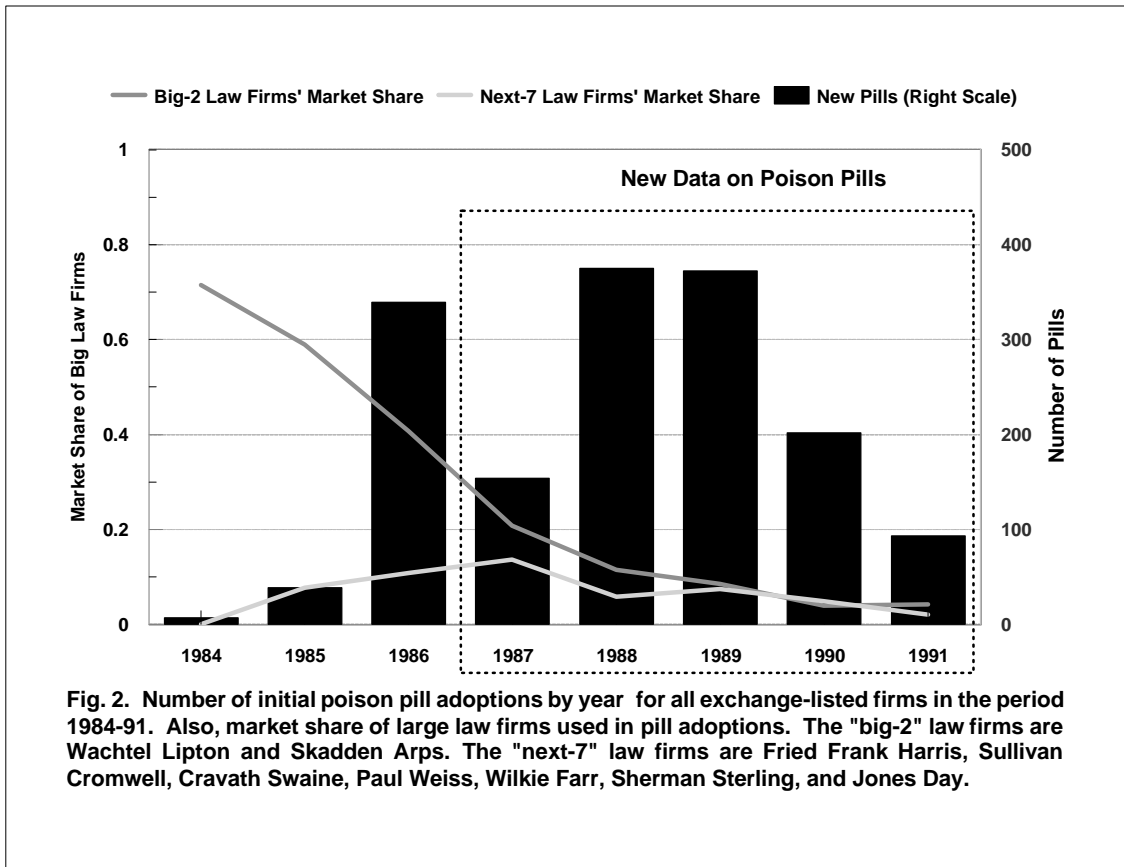
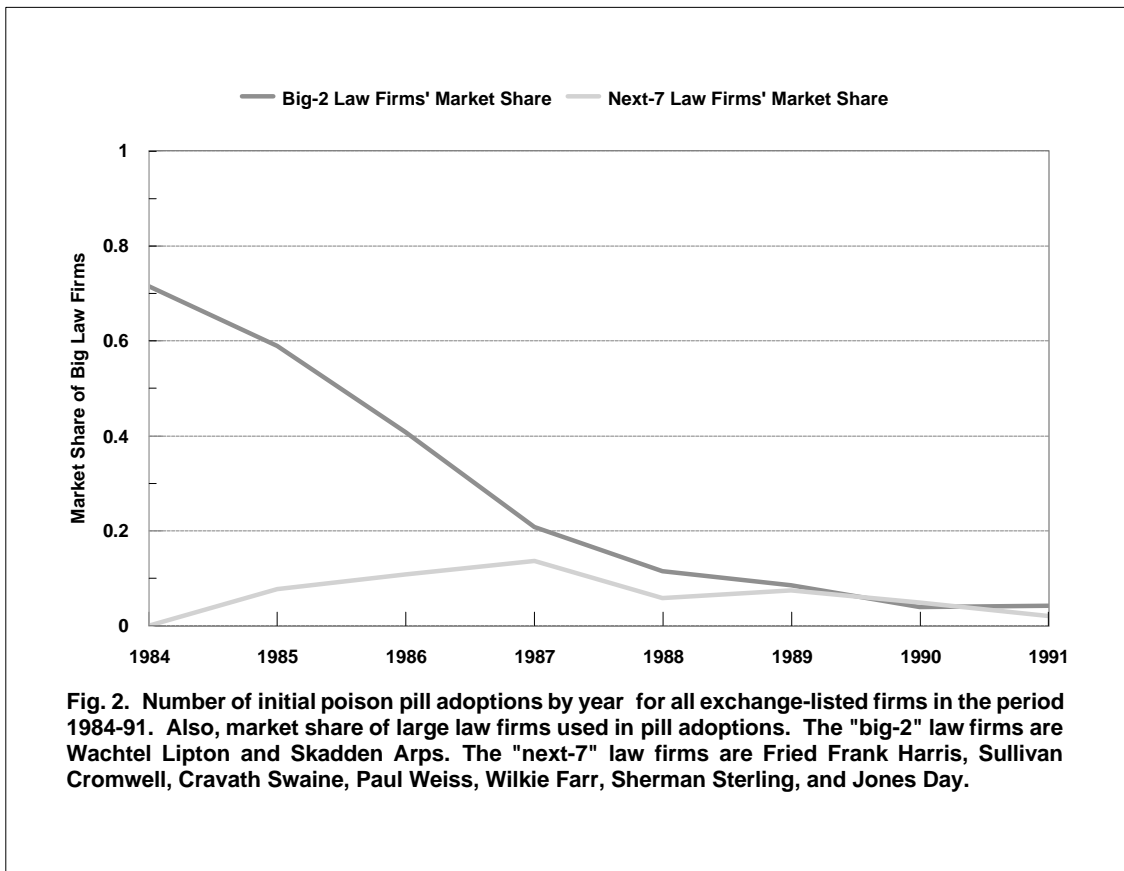
- Investor Responsibility Research Center

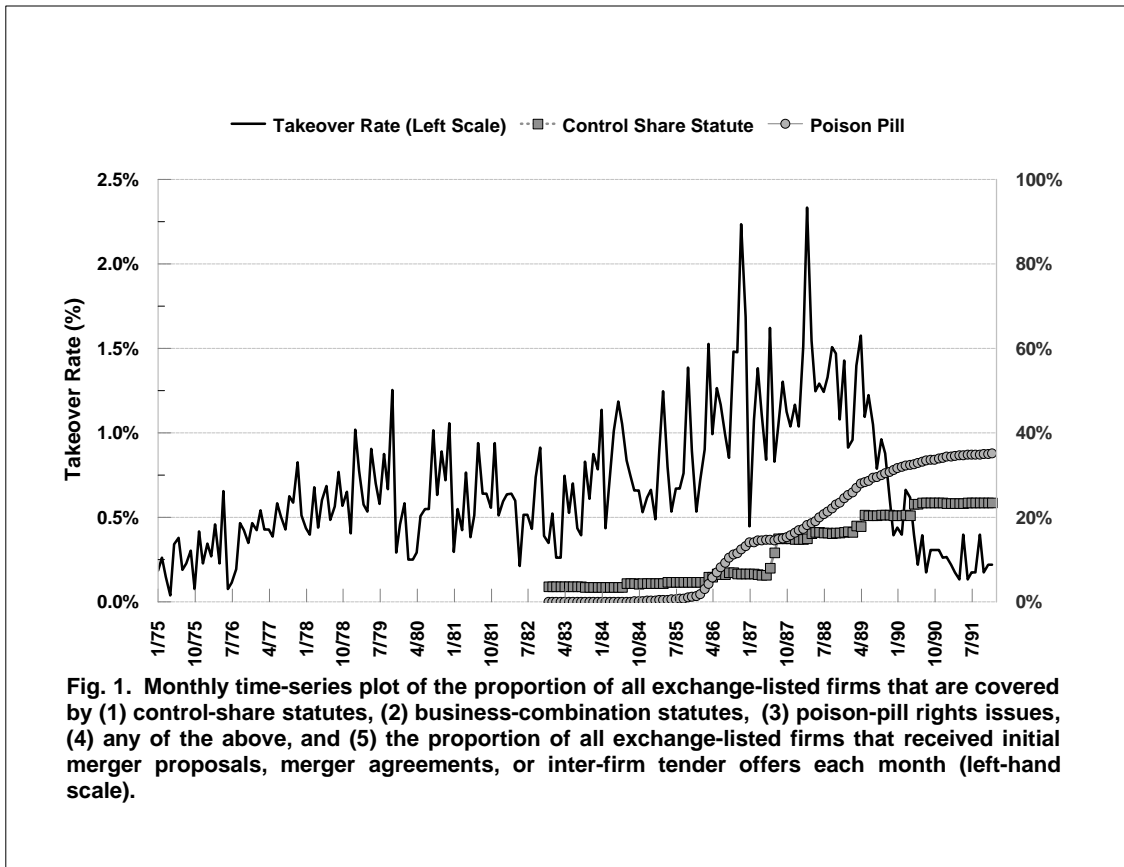
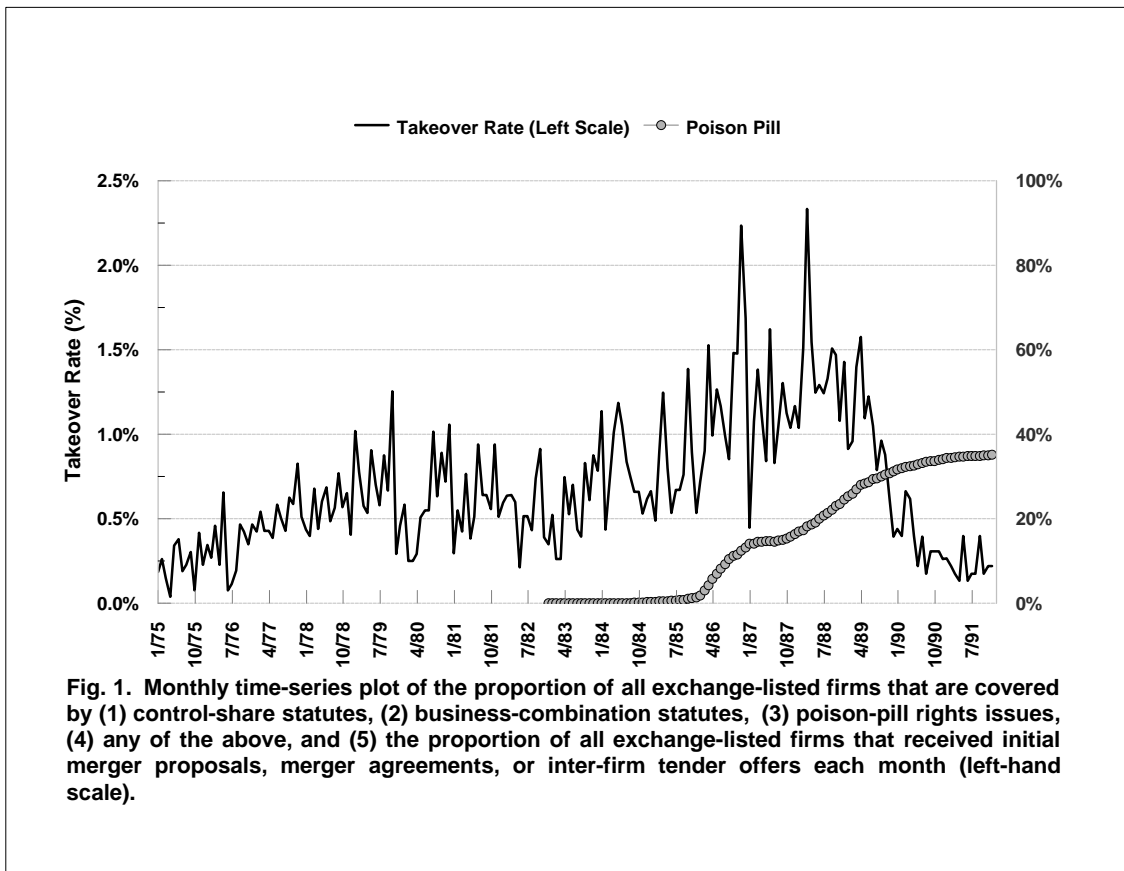
Poison pills

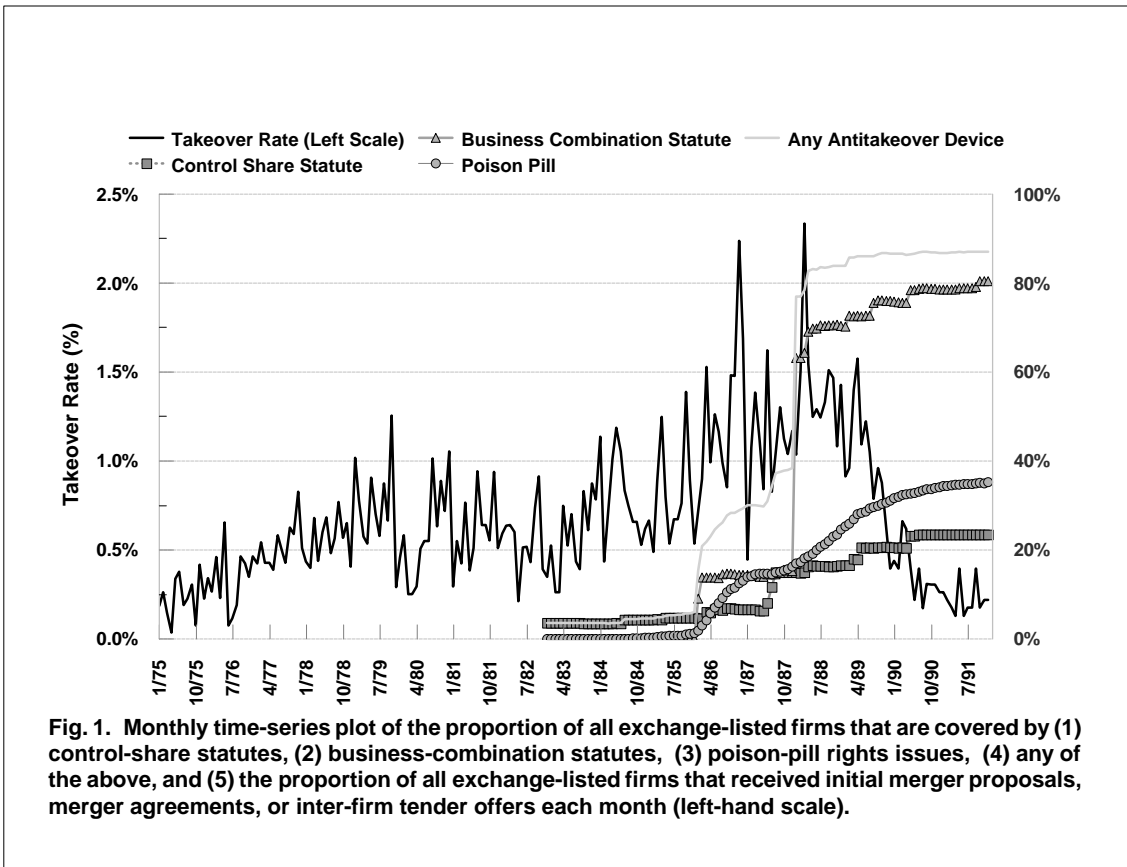
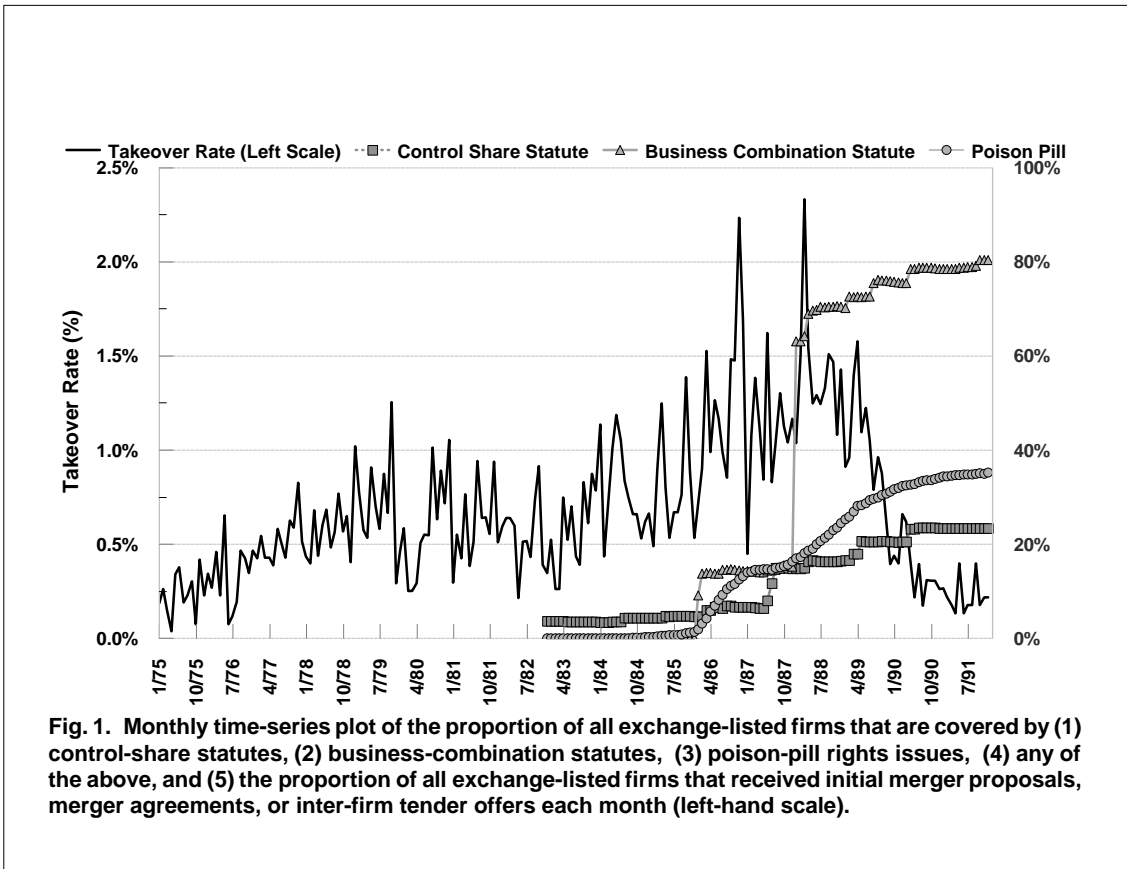
- Corporate Control Alert, DJNR searches
- 1,584 original poison pill rights issues through Dec 1991
- 60% issued by NYSE/AMEX firms

Law firm that advised on the adoption:

- Big-2 law firms: Wachtel Lipton and Skadden Arps
- Next-7 law firms: Fried Frank, Sullivan Cromwell, Cravath Swaine, Paul Weiss, Wilkie Farr, Sherman Sterling, and Jones Day







Black and Gilson (1992): **Laws May Not be Deterrents**

Deterrent effect of control share laws is limited by provision for shareholder elections

- are paid for by the buyer
- triggered by a disclosure of intent to seek control
- held within 55 days
- require simple majority to grant the buyer full voting rights
- tender offerors can condition offers on outcome of the vote

Business combination laws allow buyers to win shareholder vote

- triggered by a share purchase, not disclosure of intent
- except tender offers that yield 85% or more of target's stock

Predominance of negotiated deals in early 1980s

Target managers had bargaining power even before pills & laws

Comment and Jarrell (1987):

- tender offers for exchange-listed firms between 1981-84
- 50% of bidders obtained a merger agreement before starting
- 22% of started as hostile, but finished as negotiated bids
- 12% started as hostile, and no bidder bought any shares
- remaining 16% were executed without management's approval

Increase in bargaining power

- increase in side-payments to target managers (golden par)
 - substitution of negotiated for unnegotiated transactions

Credit Crunch of 1989-90

Putnam (1991): U. S. flow of funds data:

- net new lending to the NFCs by commercial banks from \$33 billion in 1989 to \$2 billion in 1990

- September 1988: S.E.C. sued Drexel Burnham Lambert
- October: \$570 million (Drexel-financed) Wickes LBO canceled
- December: Drexel dismissed Milken, pled guilty to 6 felony counts
 - paid \$650 million fine to avoid further criminal charges
- 1989: FIRREA required S&L's to write down junk bonds
- Bank regulators: guidelines for highly leveraged transactions
- Sept 89: Junk-bond market crashed -- Campeau Corp.
- Feb 1990: Drexel's declares bankruptcy and closure

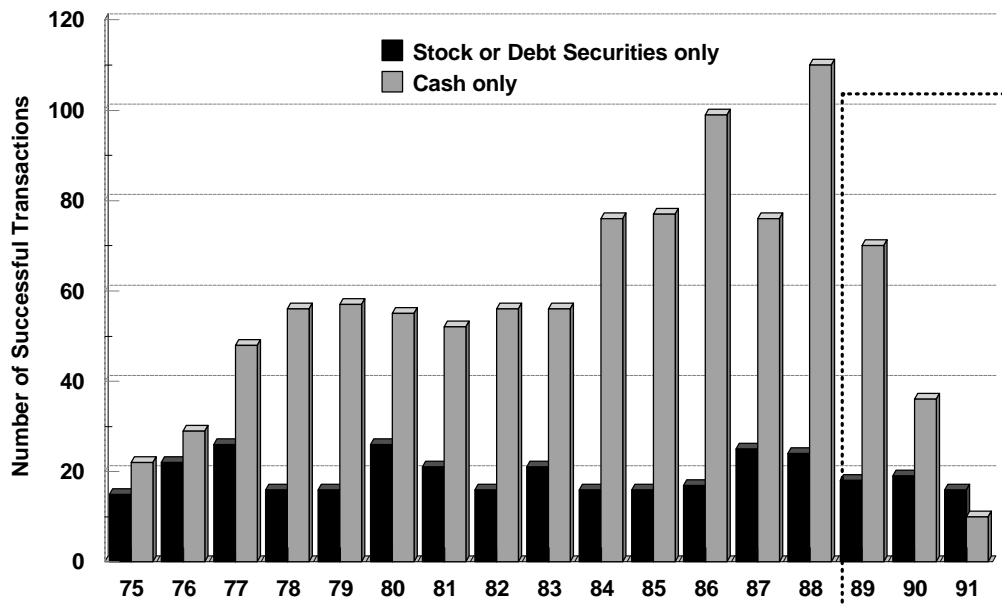
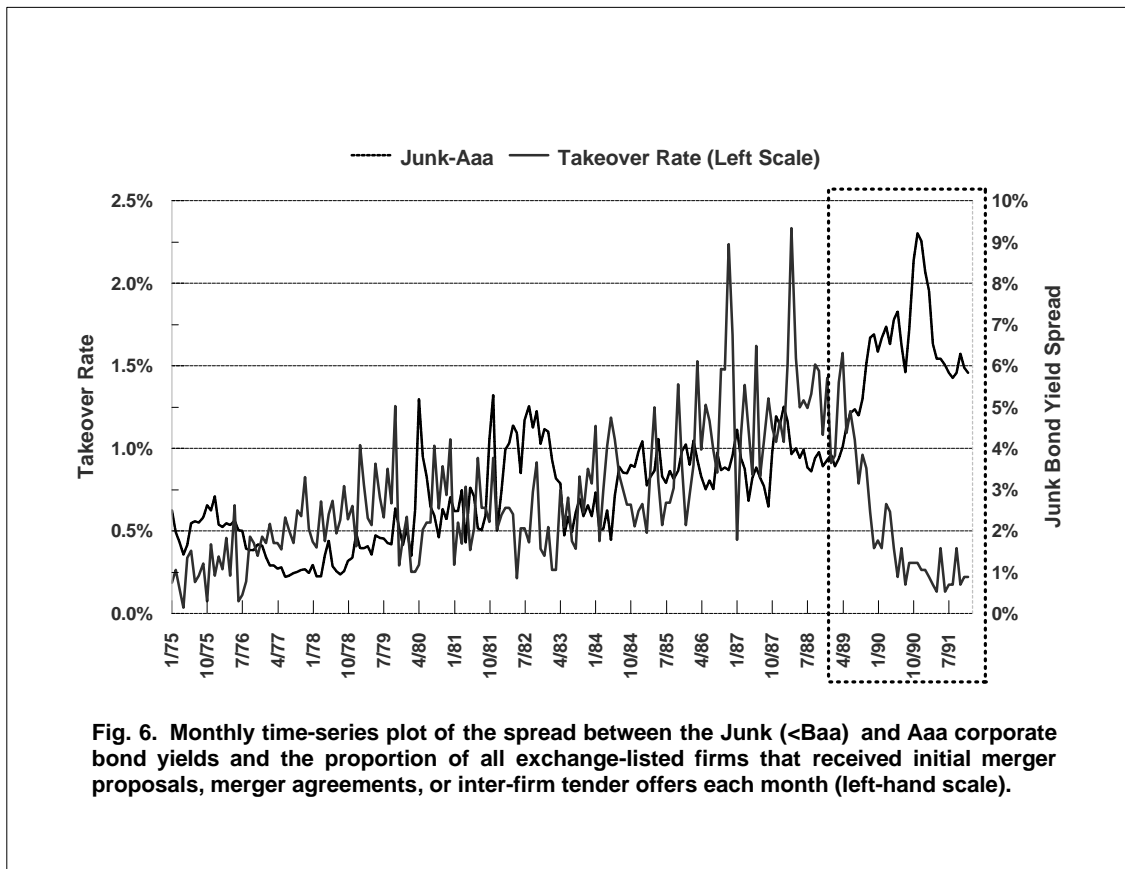


Fig. 3. Number of cash-only and non-cash-only successful takeovers of exchange-listed firms, in the period 1975-91, by year of announcement.



Data Available on COMPUSTAT & CRSP, 1976-91

Sample of 21,887 fiscal-year forecast periods

- excluding only fiscal years with < four prior years of data & handful of fiscal years after initial takeover announcement
- 669 firm-years with first announcements that lead to takeovers
- 2,456 firm-years of experience with poison pills
- 1,263 firm-years of experience with control share laws
- 3,417 firm-years of experience with business combination laws
 - covered only when an antitakeover measure at the start of year

Important Legal Precedents

Supreme Court ruled on the Indiana law in April 1987

- **521 firm-years for control share laws**

Wisconsin ruling on business combination laws in June 1988

- **884 firm-years for business combination laws**

Important pill decisions (Moran v. Household) in 1985

- **most pills adopted after this date**

Definition of M&A Events & Premiums

First announcement

- **no other qualifying announcement in prior year**

Antitakeover measures could produce higher takeover premiums

Takeover premiums:

- **compound difference target return and CRSP VW 20 days before the first announcement through five days after announcement of successful offer**

Table 1 -- Summary Statistics

Means and standard deviations of accounting performance variables and takeover characteristics for 21,887 fiscal-years beginning January 1977 through January 1991 for all NYSE and AMEX-listed stocks with necessary data available on COMPUSTAT.

Table 1 -- Summary Statistics

| <u>Variable</u> | <u>Full Sample, 21,887 Firm-years</u> | | <u>Takeover Sample, 669 Firm-years</u> | | <u>T-test for Equal Means</u> |
|-----------------|---|----------------|--|----------------|---------------------------------------|
| | <u>Mean</u> | <u>Std Dev</u> | <u>Mean</u> | <u>Std Dev</u> | |
| Abn ret | 0.0117 | 0.1777 | 0.0256 | 0.1776 | 2.06 |
| Sales gr | 0.0867 | 0.1272 | 0.0768 | 0.1127 | -2.30 |
| Liquidity | 0.2470 | 0.2061 | 0.2767 | 0.2190 | 3.57 |
| D/E | 0.7410 | 1.8455 | 0.6063 | 0.9939 | -3.43 |
| M/B | 1.4814 | 1.7316 | 1.3718 | 1.0951 | -2.57 |
| P/E | 11.1357 | 11.0488 | 10.6688 | 10.4521 | -1.17 |
| Size | 5.6291 | 1.8596 | 5.1638 | 1.4927 | -8.12 |

Table 1 -- Summary Statistics

| <u>Variable</u> | Full Sample, 21,887 Firm-years | | Takeover Sample, 669 Firm-years | | T-test for <u>Equal Means</u> |
|---------------------------------|-----------------------------------|----------------|------------------------------------|----------------|-------------------------------------|
| | <u>Mean</u> | <u>Std Dev</u> | <u>Mean</u> | <u>Std Dev</u> | |
| Control share law | | | | | |
| (eff date) | 0.0577 | 0.2332 | 0.0553 | 0.2287 | -0.28 |
| (4/87) | 0.0404 | 0.1969 | 0.0389 | 0.1934 | -0.21 |
| Business combination law | | | | | |
| (eff date) | 0.1561 | 0.3629 | 0.1345 | 0.3415 | -1.66 |
| (6/89) | 0.0404 | 0.1969 | 0.0314 | 0.1745 | -6.33 |
| Poison pill | 0.0811 | 0.2731 | 0.0957 | 0.2944 | 1.30 |

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| <u>Variable</u> | Full Sample, 21,887 Firm-years | | Takeover Sample, 669 Firm-years | | T-test for <u>Equal Means</u> |
|---------------------|-----------------------------------|----------------|------------------------------------|----------------|-------------------------------------|
| | <u>Mean</u> | <u>Std Dev</u> | <u>Mean</u> | <u>Std Dev</u> | |
| 1986 | 0.0632 | 0.2433 | 0.0912 | 0.2881 | 2.57 |
| 1987 | 0.0611 | 0.2396 | 0.0658 | 0.2481 | 0.49 |
| 1988 | 0.0589 | 0.2354 | 0.0822 | 0.2749 | 2.24 |
| 1989 | 0.0562 | 0.2304 | 0.0628 | 0.2427 | 0.71 |
| 1990 | 0.0495 | 0.2169 | 0.0329 | 0.1785 | -2.43 |
| 1991 | 0.0462 | 0.2100 | 0.0075 | 0.0862 | -11.00 |
| M&A Suc | 0.0306 | 0.1721 | | | |
| Premiums | 0.0107 | 0.0828 | 0.3489 | 0.3263 | |
| Auction | | | 0.2407 | 0.4278 | |
| All-Cash | | | 0.6741 | 0.4690 | |
| Tender Offer | | | 0.4499 | 0.4979 | |

Table 2 Announcement Effects of Pills

OLS regression showing the average wealth effect of initial poison-pill rights issues announced in the period 1983-91 for NYSE, AMEX and NASDAQ-listed stocks, by whether a 13D filing, rumors of a bid, or an explicit takeover bid make it likely that a control premium is built into the issuer's stock price at the time of the announcement. A variable also measures whether merger and acquisition (M&A) news is announced at the same time as the pill. Also, a dummy variable is used to distinguish NASDAQ-listed firms. Dummy variables for the year of adoption starting in 1985 are used to distinguish the early pills from the later ones.

The dependent variable is measured as the cumulative abnormal return over days -1 to +1 using a market model estimated using the CRSP value-weighted market portfolio during the year prior to the pill announcement.

(t-statistics in parentheses)

Table 2 -- Announcement Effects of Pills (cont.)

| <u>Variable</u> | <u>Coefficient</u> | <u>T-statistic</u> | <u>Proportion of Sample</u> |
|---|--------------------|--------------------|---------------------------------|
| Dummy=1 for Prior Control Premium | -0.0209 | (-6.60) | 0.1659 |
| Dummy=1 for Contemporaneous M&A News | 0.0326 | (3.16) | 0.0685 |
| Dummy=1 for NASDAQ-listed Firms | -0.0076 | (-2.40) | 0.3633 |
| 1984 | -0.0232 | (-1.71) | 0.0062 |
| 1985 | 0.0068 | (0.81) | 0.0254 |
| 1986 | 0.0032 | (1.31) | 0.2255 |
| 1987 | 0.0038 | (0.81) | 0.0987 |
| 1988 | 0.0098 | (3.29) | 0.2358 |
| 1989 | 0.0023 | (0.66) | 0.2282 |
| 1990 | 0.0036 | (0.74) | 0.1206 |
| 1991 | 0.0087 | (1.18) | 0.0596 |

Table 3

Probit Predictions of M&A and Pills

Probit estimates of the dependence of takeover likelihood on accounting and stock price data, state antitakeover law, and poison pills (left panel), and the dependence of poison pill adoptions on accounting data and state antitakeover law (right panel), using pooled time-series cross-sectional data for exchange-listed firms and for fiscal-year forecast periods beginning January 1977 through January 1991 (21,887 firm-years).

The dependent variable is either a dummy that equals one if a successful tender offer, merger proposal or merger agreement is announced during the forecast period, or a dummy that equals one if a firm adopts an original poison pill during the forecast period.

The predictor variables are all defined as of the start of the forecast period.

Table 3 -- M&A and Pill Prediction

| <u>Predictors</u> | <u>Dependent variable</u> | | | |
|-------------------|---------------------------|---------------|----------------------------|---------------|
| | <u>Takeover Dummy</u> | | <u>Pill-adoption Dummy</u> | |
| | <u>Coefficient</u> | <u>T-stat</u> | <u>Coefficient</u> | <u>T-stat</u> |
| Poison pill | 0.345 | 4.60 | | |
| Predicted pills | -0.735 | -2.01 | | |
| Surprise pills | 0.418 | 5.23 | | |
| Control share law | 0.184 | 1.55 | 0.277 | 5.49 |
| Business comb law | 0.267 | 1.74 | 0.573 | 7.88 |
| Abn ret | 0.177 | 1.42 | -0.054 | -0.46 |
| Sales growth | -0.086 | -0.51 | -0.450 | -3.28 |
| Liquidity | 0.073 | 0.64 | 0.453 | 4.59 |
| Debt/equity | -0.024 | -1.30 | -0.011 | -0.99 |
| Market/book | -0.012 | -0.70 | 0.011 | 0.96 |
| Price/earnings | -0.001 | -0.62 | 0.003 | 2.33 |
| Size | -0.048 | -3.24 | 0.231 | 20.79 |

Table 3 -- M&A and Pill Prediction (cont.)

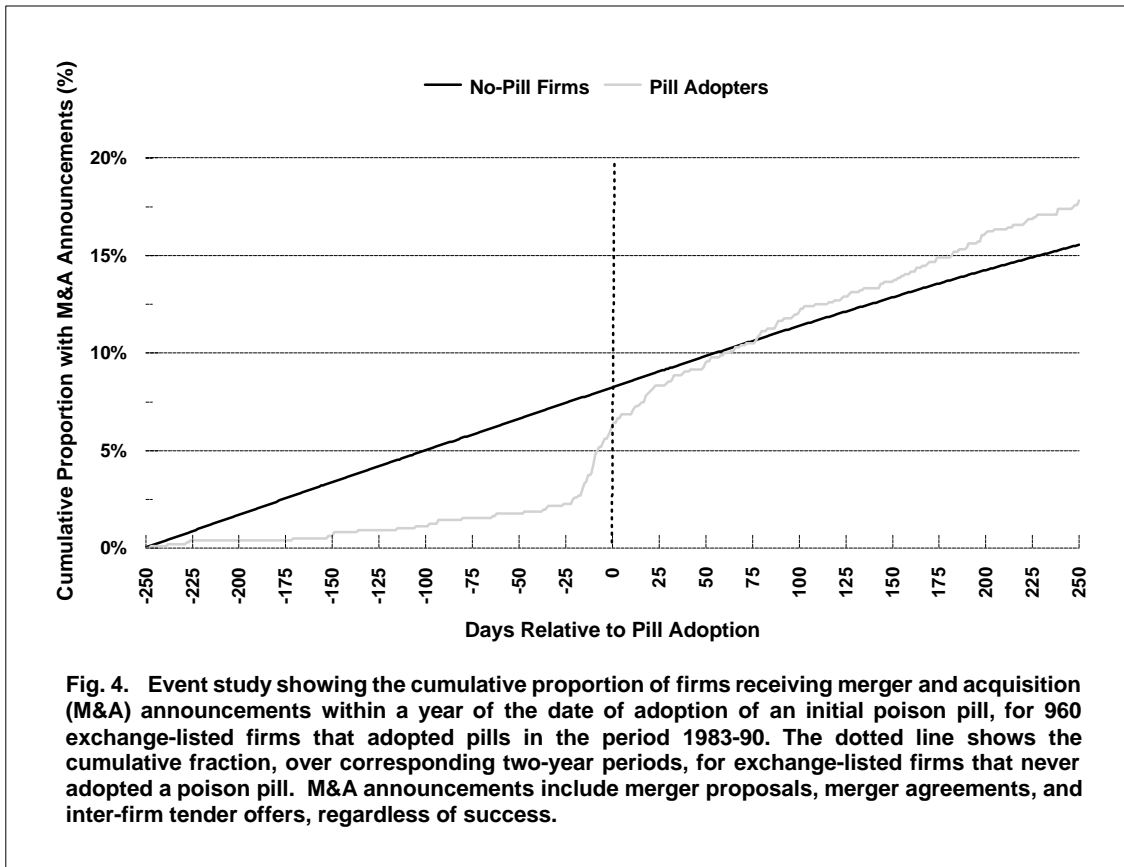
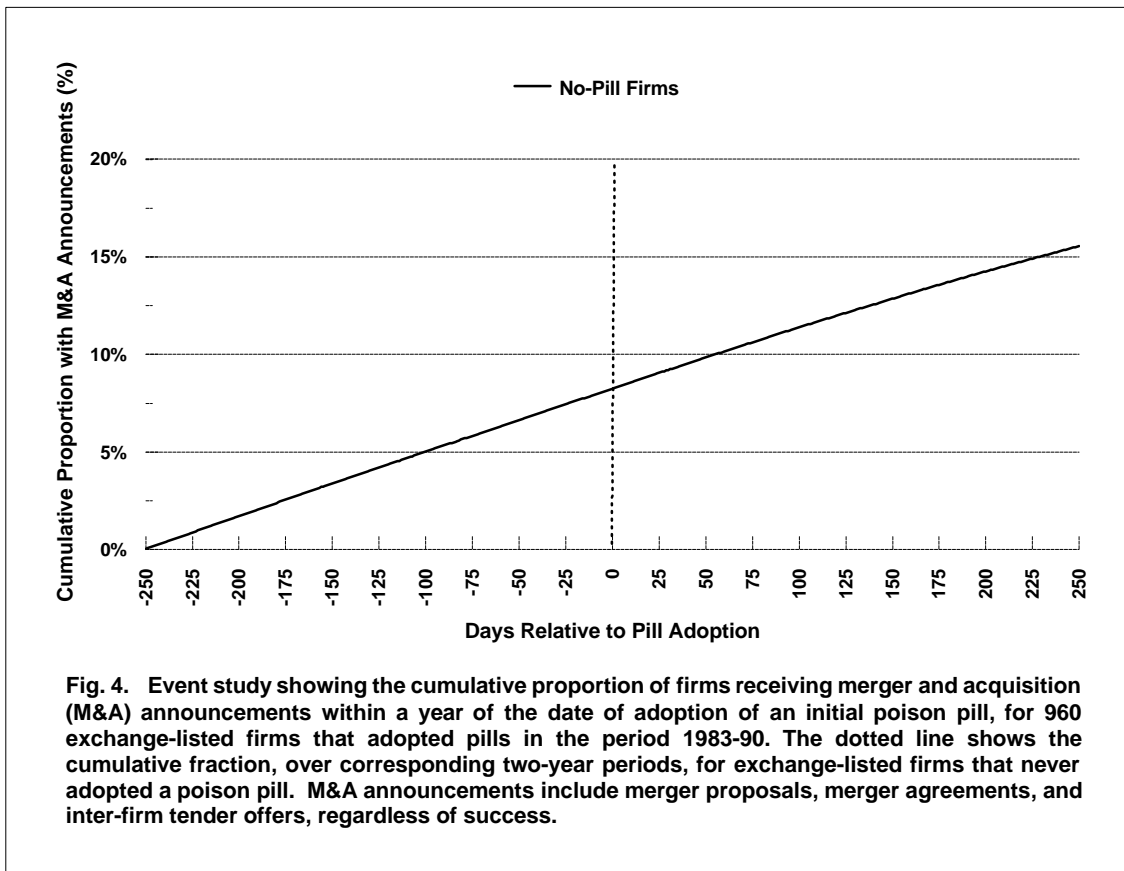
| <u>Predictors</u> | <u>Dependent variable</u> | | | |
|--------------------|---------------------------|---------------|----------------------------|---------------|
| | <u>Takeover Dummy</u> | | <u>Pill-adoption Dummy</u> | |
| | <u>Coefficient</u> | <u>T-stat</u> | <u>Coefficient</u> | <u>T-stat</u> |
| Constant | -1.602 | -11.81 | -4.997 | -31.39 |
| • 1986 | 0.216 | 1.61 | 1.188 | 7.52 |
| • 1987 | 0.155 | 1.17 | 2.374 | 17.29 |
| • 1988 | 0.300 | 2.20 | 2.577 | 18.85 |
| • 1989 | 0.234 | 1.41 | 2.866 | 21.04 |
| • 1990 | -0.114 | -0.58 | 2.689 | 18.22 |
| • 1991 | -0.681 | -2.58 | 2.746 | 18.19 |
| Log-likelihood | -2922.89 | | -3291.12 | |
| Degrees of freedom | 21,869 | | 21,871 | |

Pills & Selection Bias

Pills are adopted at discretion of management

- **56% of DJNR stories on pill adoptions deny pending takeover**

Deterrent effect could be masked by this selection bias



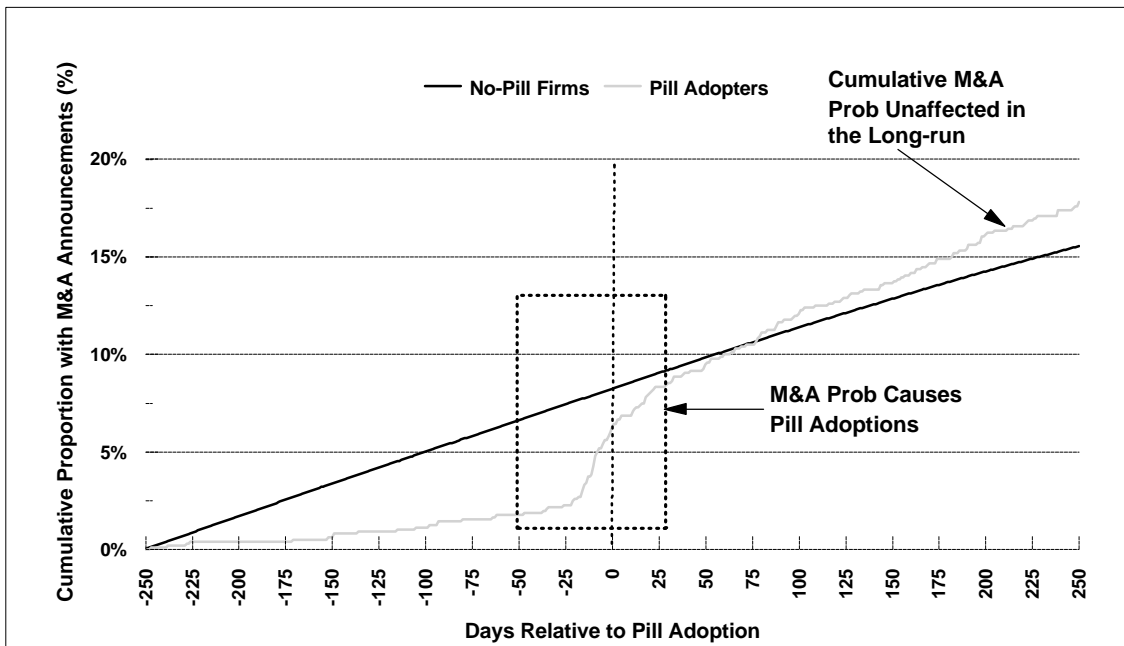


Fig. 4. Event study showing the cumulative proportion of firms receiving merger and acquisition (M&A) announcements within a year of the date of adoption of an initial poison pill, for 960 exchange-listed firms that adopted pills in the period 1983-90. The dotted line shows the cumulative fraction, over corresponding two-year periods, for exchange-listed firms that never adopted a poison pill. M&A announcements include merger proposals, merger agreements, and inter-firm tender offers, regardless of success.

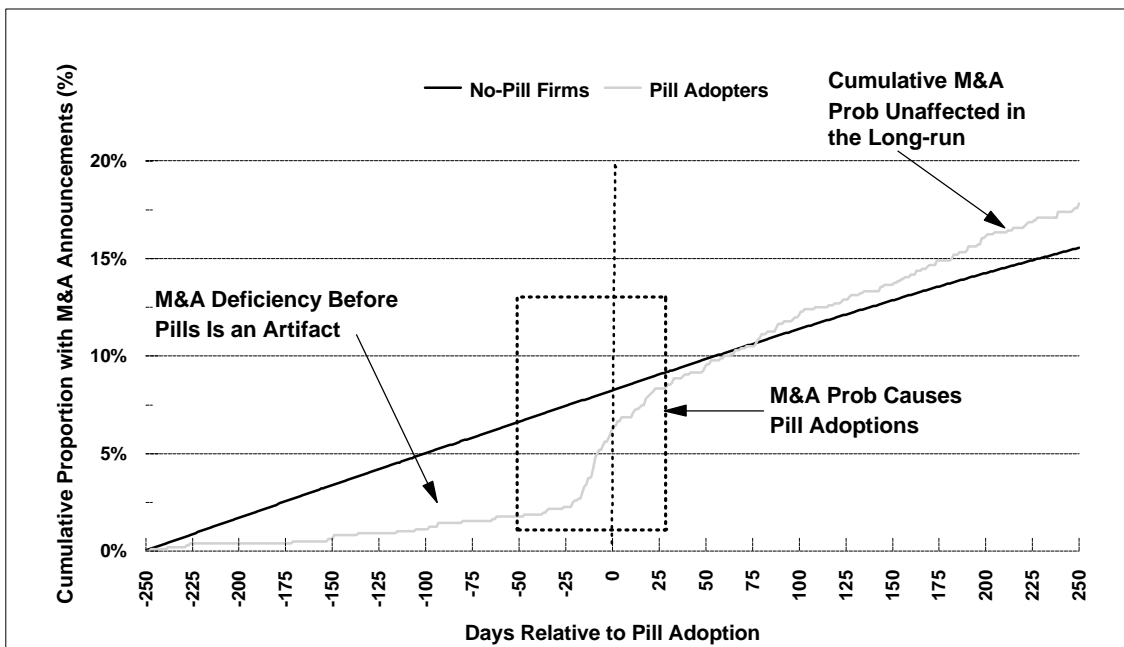


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Table 4

Predicting M&A Premiums

Least squares (OLS) estimates of the relation of takeover premiums with state antitakeover law, poison pills, accounting data, and characteristics of the takeover.

Takeover premiums are measured as the compounded difference in the returns to target firms' stock and the CRSP value-weighted NYSE/AMEX market portfolio during the period from 20 trading days before the first merger proposal or tender offer through 5 trading days after the successful offer.

Table 4

Predicting M&A Premiums

In the left panel, the sample consists of pooled time-series cross-sectional data for exchange-listed firms with fiscal-year forecast periods beginning January 1977 through January 1991 (21,887 firm-years).

The right panel uses the 669 firm-years when a subsequently successful takeover begins. The predictor variables are all defined as of the start of the forecast period.

Two specifications of the timing of state antitakeover laws are used: (a) State Law Dates are the effective dates of the law in the firm's state of incorporation, and (b) Court Case Dates are when major legal precedents established the effectiveness of these laws (April 1987 for Control Shares laws, and June 1989 for Business Combination laws).

Table 4 -- Court Case Dates

| <u>Predictors</u> | Full Sample of Firm-years (21,887) | | Successful Takeover Sample (669) | |
|-------------------|---------------------------------------|---------------|-------------------------------------|---------------|
| | <u>Coefficient</u> | <u>T-stat</u> | <u>Coefficient</u> | <u>T-stat</u> |
| Poison pill | 0.0144 | 4.38 | 0.1627 | 2.95 |
| Predicted pills | 0.0024 | 0.30 | 0.4588 | 1.60 |
| Surprise pills | 0.0151 | 4.33 | 0.1453 | 2.31 |
| Control share law | 0.0080 | 1.96 | 0.1094 | 1.61 |
| Business comb law | 0.0054 | 2.22 | 0.0269 | 0.29 |
| Abn ret | 0.0059 | 1.71 | 0.0439 | 0.61 |
| Sales growth | 0.0048 | 1.27 | 0.3964 | 3.48 |
| Liquidity | 0.0096 | 3.18 | 0.0813 | 1.33 |
| Debt/equity | -0.0003 | -1.77 | -0.0167 | -1.37 |
| Market/book | -0.0005 | -2.52 | -0.0212 | -2.00 |
| Price/earnings | -0.0001 | -1.46 | -0.0012 | -0.97 |
| Size | -0.0008 | -2.38 | 0.0020 | 0.20 |

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| <u>Predictors</u> | Full Sample of Firm-years (21,887) | | Successful Takeover Sample (669) | |
|----------------------------------|---------------------------------------|---------------|-------------------------------------|---------------|
| | <u>Coefficient</u> | <u>T-stat</u> | <u>Coefficient</u> | <u>T-stat</u> |
| Auction (=1 if multiple bidders) | | | 0.1137 | 3.61 |
| All-Cash (=1) | | | 0.0857 | 3.53 |
| Tender Offer (=1) | | | 0.1296 | 5.27 |

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| <u>Predictors</u> | Full Sample of Firm-years (21,887) | | Successful Takeover Sample (669) | |
|----------------------|---------------------------------------|---------------|-------------------------------------|---------------|
| | <u>Coefficient</u> | <u>T-stat</u> | <u>Coefficient</u> | <u>T-stat</u> |
| Constant | 0.0137 | 5.31 | 0.2048 | 3.02 |
| • 1986 | 0.0020 | 0.92 | -0.1214 | -3.74 |
| • 1987 | -0.0012 | -0.48 | -0.1579 | -2.78 |
| • 1988 | 0.0119 | 2.66 | 0.0289 | 0.29 |
| • 1989 | -0.0007 | -0.18 | -0.2369 | -2.30 |
| • 1990 | -0.0103 | -3.97 | -0.2675 | -4.42 |
| • 1991 | -0.0144 | -4.21 | -0.2934 | -2.08 |
| Adjusted R-squared | 0.005 | | 0.192 | |
| Standard err of regr | 0.0826 | | 0.2933 | |
| Degrees of freedom | 21,869 | | 648 | |

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Conclusions

1. **Event study evidence shows weak expected deterrence and/or higher expected premiums**
2. **Strong evidence that pill adoption reveals private information about the likelihood of becoming a target**
 - weak evidence for deterrence from predicted pills
3. **Premiums are higher following surprise pills**
 - management resistance to unexpected bids
 - controls for: past performance, secular variation, type of offer